

IN THE CLAIMS

Please amend the claims to read as follows:

Listing of Claims

1-16 (Canceled).

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17. (New) A coding apparatus comprising:

a CRC attachment unit that adds a CRC-bit to transport blocks by performing CRC coding on a transport block basis;

31 a concatenating unit that concatenates the transport blocks with each transport block having the CRC-bit to provide a concatenated transport block;

a code block segmentation unit that segments the concatenated transport block into code blocks based on a number of the transport blocks, such that the CRC-bit exists at the end of each segmented code block; and

an error correcting coding unit that codes each segmented code block.

18. (New) The coding apparatus according to claim 17, wherein, with respect to at least one of said segmented code blocks having an amount of data that is smaller than that of other of said segmented code blocks, said code block segmentation unit inserts known data at the start position of the at least one of said segmented code blocks to cause the at least one of said segmented code blocks to have a same amount of data as the other of said segmented code blocks.

19. (New) A decoding apparatus comprising:

an error correcting decoding unit that decodes on a code block basis a concatenated code block with each code block having CRC-bit placed at the end;

a dividing unit that detects a position of concatenation of the concatenated code block with each code block decoded and performs division of the concatenated code block based on a detection result; and

B1 an inspecting unit that performs CRC-bit cyclic redundancy inspection on each divided code block provided by said division unit.

20. (New) The decoding apparatus according to Claim 19, wherein said dividing unit detects the position by detecting the CRC-bit in the concatenated code block with each code block decoded and performs the division by dividing the concatenated code block into a code block so that each detected CRC-bit is placed at the end of each divided code block.

21. (New) The decoding apparatus according to claim 19, further comprising a deleting unit that deletes, when known data exists in a decoded code block, the known data.

22. (New) The decoding apparatus according to claim 19, wherein said error correcting decoding unit replaces a soft

decision value of the part of the known data of a code block with a maximum value of the soft decision value when the known data is 0 and replaces with a minimum value of the soft decision value when the known data is 1 and carries out error correcting decoding of the known data using the replaced soft decision value.

23. (New) A mobile station apparatus comprising the coding apparatus according to claim 17.

24. (New) A mobile station apparatus comprising the decoding apparatus according to claim 19.

25. (New) A base station apparatus comprising the coding apparatus according to claim 17.

26. (New) A base station apparatus comprising the decoding apparatus according to claim 19.

27. (New) A coding method comprising the steps of:  
adding a CRC-bit to transport blocks by performing CRC coding on a transport block basis;  
concatenating the transport blocks with each transport block having the CRC-bit to provide a concatenated transport block;

segmenting the concatenated transport block into code blocks based on a number of the transport blocks, such that the CRC-bit exists at the end of each segmented code block; and

performing error correcting coding on each segmented code block.

28. (New) The coding method according to claim 27, wherein said segmenting step includes insertion, with respect to at least one of said segmented code blocks having an amount of data that is smaller than that of other of said segmented code blocks, of known data at the start position of the at least one of said segmented code blocks to cause the at least one of said segmented code blocks to have a same amount of data as the other of said segmented code blocks.

29. (New) A decoding method comprising the steps of:

(a) performing error correcting decoding on a code block basis on a concatenated code block with each code block having a CRC-bit placed at the end thereof;

(b) detecting a position of concatenation of the concatenated code block with each code block decoded in step (a) and performing division of the concatenated code block based on a detection result; and

(c) performing CRC bit cyclic redundancy inspection on each divided code block.

30. (New) The decoding method according to claim 29, wherein said division includes detecting the CRC-bit in the concatenated code block with each code block decoded in step (a) and dividing the concatenated code block with each code block decoded in step (a) into a code block so that each detected CRC-bit is placed at the end of each divided code block.

31. (New) The decoding method according to claim 29, further comprising the step of deleting, when known data exists in a code block decoded in step (a), the known data.

32. (New) The decoding method according to claim 29, wherein step (a) includes replacing a soft decision value of the part of the known data of a code block with a maximum value of the soft decision value when the known data is 0 and replacing with a minimum value of the soft decision value when the known data is 1 and carrying out error correcting decoding of the known data using the replaced soft decision value.

33. (New) A coding/decoding method comprising decoding a signal coded by the coding method according to claim 27 by a decoding method according to claim 29.